



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BIRDS OF NEW GUINEA (MISCELLANEOUS).

BY G. S. MEAD.

(Continued from page 417).

Considerable uncertainty exists in regard to the different species of *Rectes*. The lines of division between them have not been clearly drawn; accordingly, we are in possession of more names than birds, the difficulty arising from insufficient information as to the size, age, locality and even sex of the specimens described. Passing over two or three doubtful forms we meet with a species new to science when D'Alberty and Salvadori first saw it. It is *R. brunneiceps*. The back and scapulars are a bright cinnamon, the head and neck a clouded brown, the breast, abdomen, under sides of wings and tail fulvous. The ground color therefore, is not as distinctly laid as in most, if not all, of the other forms.

Rectes aruensis is a handsome little bird of a very bright chestnut body, a crested head entirely black, and throat, breast, wings and tail the same. Under parts are of a deep tawny buff. The black on the breast is prolonged in a shield-like figure as far as the abdomen. Length, ten inches.

Rectes jobiensis has a warm reddish brown throughout excepting where, as on the head, the coloring takes a lighter dye. The under parts are not materially different in coloration, a paler or deeper shading of the prevailing tint only being noticeable. Even the bill has the same general complexion. The female is similar to the male with the advantage of a somewhat larger size. As indicated by the specific name, *jobiensis* comes from the island of Jobie, northwest of the mainland in Geelvink Bay. He is a handsome bird like most of his kind, the erectile crest, which, however, is scarcely more than the head feathers considerably ruffled, adding to his conspicuous appearance. Not much is known of his habits or of any of the *Rectes*. The total length of the present species is a fraction over nine inches.

Pseudorectes, classed as a separate genus, are so like the *Rectes* in most respects as to make special description, if entered

upon at all, of obvious necessity. It will be sufficient here, while pointing out that the differences lie chiefly in the form of the crests, bill and, in the case of *Melanorectes* (a third genus), nasal bristles, to mention a few species and add one or two details as marks of identification. *Pseudorectes cristatus*, now placed in this genus, is noticeable for its crested head. Its general color is dull red, shading and paling on certain parts of the body, wings and tail. In size and appearance *Pseudorectes ferrugineus* is like the other species. Male and female differ imperceptibly. Above darkish brown predominates shading off or brightening on the wings and tail. Beneath is a soft buff. The bill, legs and feet dusky. *Pseudorectes leucorhynchus*, or white-bellied wood shrike, is another species with the customary coat of snuff brown, tail brighter, head darker, under parts a warm buff as far as the throat, which becomes tawny. Bill yellow. Tail nearly one-half the total length, measuring more than five inches. A synonym is *Colluricincla leucorhyncla*, sometimes classified as *Rectes*.

The third genus, *Melanorectes*, represented by the species *nigrescens*, is fairly well indicated by its name. The general color of the male is dark, black on the head, black or sooty on the under parts. Bill black, legs plumbeous. The female is ruddy and dusky brown, rejoicing in a brighter garb than her mate, although the tints are neutral rather than positive. The length is seven inches.

The *Rectes*, or to be more exact, *Rectes dichrous*, is the only bird according to Mr. Goldie, that the natives will not eat.

New Guinea contains several species and sub-species of the genus *Chibia*, the native name for the Drongo shrike, birds of from 10 to 13 inches in length, belonging to the family of the *Dicruridæ*. They are black in color with a purplish or greenish sheen, rather long, square cut tails, wings somewhat longer, both reflecting lustre more or less faint, strong, curved beaks imbedded in bristling hairs, and, in some instances, long, delicate, flexible hair-feathers on the head. It seems hardly essential to separate this genus from *Dicrurus*. In fact, most travelers in New Guinea have employed the latter name

exclusively in describing these birds, but Mr. Sharpe's decision is in favor of the first mentioned. *Chibia carbonaria* is perhaps the most common member of this genus, being met with near Port Moresby and elsewhere in New Guinea as well as on adjacent islands. It is 12 inches long, black all over, with green or purple gloss sometimes, glittering as from metal, but on the face of a velvety softness. The bill and legs are also black. A smaller form inhabiting the Aru Islands has been called *Dicrurus assimilis*.

Another variety, *Chibia megalornis*, belongs to Ke Island, to the east of Aru. Here the gloss and reflections are about the same as already recorded, with perhaps an added glint of blue and darting gleams of steel. Bead-like points show here and there on the breast as on the other species. Hackles appear on the neck of a greenish tinge. The bird is about 11 or 12 inches in length with tail about half as long.

A little bird living in Southern New Guinea, though not confined to that region, may frequently be seen flitting about among the trees in the bush, engaged in a busy search for food. This is *Collyriocincla brunnea* of the *Prionopidæ*. It is a brown and gray bird, the brown washed with gray as on the wings, becoming altogether white on the cheeks, or gray obtruded upon by brown, as along the the tail and on the crown; below a muddy tint running whitish and white on the belly and under tail-coverts. A glow of yellow shows on the under wing-coverts. The length is only between 8 and 9 inches.

Closely related to the foregoing, by some authorities regarded as of the same class, by others formed into a separate genus, are small birds termed *Pinarolestes*; little shrikes they may be called. The species *P. megarhynchus* is common enough throughout the archipelago. The prevailing color is a dark brown, streaked on the breast a deeper hue. Total length 8 inches; the female a trifle smaller.

Near Port Moresby, of recent years so well known a spot in Southern New Guinea, may be met more or less frequently a few species of the *Oriolidæ*, one of which, of the genus *Sphecotheres*, is especially noticeable. It is about the average

size of the oriole, has some bright color, though the general tone is sober, and has that bare or bald circlet around the eye which imparts a singular aspect to the face. The bird in question is *Sphecothebes salvadorii*, so named from the eminent Italian ornithologist. There is much olivaceous, becoming almost yellow around the body, running into a bluish gray about the throat and side face, white on the abdomen, yellow on the upper portion, white in wide patches on the outer tail feathers, the inner ones black, jet black on the crown as far as the staring spaces enclosing the eyes. The female is clad in dusky brown or slate mainly, mottled by darker spots on the upper surface, the under parts with running spots or irregular lines of olive or dusky over a pale yellow ground. The tail is marked similarly with that of the male, only brown takes the place of black, and dull yellow of white on some of the feathers. Clear white occurs about the vent and an open spot around the eye. Mr. Stone collected this bird as well as *Oriolus striatus*, a true oriole, common, probably, over the island. In this case the general coloration is not greatly unlike that of the female above described, with, however, a purer brown both above and beneath; but the distinctive feature of the *striatus*, as the name implies, rests in the streaks which appear almost everywhere in narrow or broader lines over the body and even monopolize the crown of the head. In fact, about the only parts free from these long black, brown or gray streaks are the wings and tail, yet these are lined off or margined with slightly different tints. The female does not show markings at variance with those of the male. The length is a good 12 inches.

Hattam Thickhead (*Pachycephalopsis hattamensis*), is a small bird about 7 inches in length, found in the mountains of Northwest New Guinea. The sexes do not differ in color or size. Back and wings are a deep olive which becomes a mere line on the wing-coverts; these are almost black. The under-wing coverts and tail are a light brown somewhat varying in shade. The head and nape of neck are gray, the lores white, as are also the chin and throat. Lower down this changes into a greenish yellow, shading off on the abdomen. Bill and feet dark.

The Blue-bodied *Eupetes*—*Eupetes cærulescens*—is a small thrush-like bird about 8 inches in length. D'Albertis speaks somewhat doubtfully about its habits. It runs along the ground, he says, and does not appear to perch upon the trees. Gould, however, figures it on low branches. In color it is not unlike our shrikes, although darker and more uniform, the prevailing tint being a soft bluish grey. Black is seen on the face and as a narrow rim surrounding the pure white throat. A less clear gray is spread on the under tail feathers; otherwise the gradations of the uniform steel blue are scarcely observable. The bill is sharp and black; legs and feet black. The noticeable feature of this bird is the pure white throat, the white extending well down on the breast and half way round the neck. This feature is characteristic of this fine group of birds and marks them out at once.

The Manucodes form in their several species a beautiful class of richly plumed birds, sometimes numbered with the *Paradisea*, but belonging rather to the crow family. They are however a glorified crow in their sparkling dress and imperial bearing. One of the most conspicuous for size and elegance is the Curl-crested bird of paradise, as he is sometimes styled—*Manucodia comrii*. This species is of a wondrously lustrous black throughout; it fairly blazes out with the very intensity of brightness, so that all the possible combinations which rays of light fastening upon a gleaming black surface are capable of forming, here display themselves in changing blue, violet, green, purple, etc. The dazzling effect is greatly magnified and heightened by the appearance as it were of beads and spangles of feathers upon the flat surface of the body. Upon these the reflections of light seize and glitter with a fitful radiance. To no bird, therefore, can the term sparkling be applied with as much appropriateness as to the Manucodes. Especially are these short, crisp, curl-feathers producing the strange effect abundant on the breast. In fact, they cover it, while reaching around the sides and upon the shoulders. The head, too, with its double crest of compact, thick feathers, is almost as heavily bejewelled. In addition to the short convoluted feathers, another singular

feature should not be overlooked: upon the long, heavy tail-feathers may be seen superfluous feathers, somewhat loosely laid and extending not quite the length of those below. These take the shape of the keel of a boat not unlike the tail of our crow blackbird in flight, though devoid of the trimness and elegance that marks that fine bird. The habitat is the D'Entrescasteaux group of islands. The bird has a strange, low, far-penetrating whistle. The bill and feet of the *comrii* are dull black. The bill is long and powerful. The total length of the bird is between 17 and 18 inches. The nest of this manucode has been found on the lower branch of a breadfruit tree near the end. It was composed of small vines and twigs rudely heaped together. The eggs were long and pointed and more than an inch and a half in length. Their color was buff or fawn blotched with purple dots and streaks.

Considerably smaller, but quite as brilliantly adorned is the Green Manucode—*Manucodia chalybea*—whose habitat is the mountains near the seacoast. Although green would seem to be the distinctive color of this species, yet the play of blue over the basal black is almost as much in evidence; both these tints are evanescent. The little recurved feathers cover the head, neck and throat and the breast as far as the abdomen. The tail is also boat shaped and reflects blue, violet, purple from a smooth surface. The back is rippled over in blue, green and lilac waves of light whenever the bird moves or the angle of vision is changed. But it is on and by means of the spangled feathers that the most exquisite effects are produced. At times they seem to dart forth light like sparks on burnt paper. The length of this manucode is about 14 inches.

Another species of Catbird besides those already mentioned is the Black-naped--*Aeluroedus melanocephalus*. The resemblance is close among the several branches of this group of birds. Here as with all the rest grass green and pale yellow are the prevailing tints. In this instance the breast, head and neck are liberally marked with black spots or streaks. White with similarly black-tipped feathers takes the place of the yellow on the

throat and cheeks. White terminates the tail feathers and is also found on the abdomen. There are spots of ochre on some of the wing feathers. The crown of the head is much dotted with black while the nape is almost entirely black. The length of this species is between 11 and 12 inches. The habitat the Astrolobe Mountains.

Mafoor Island Cuckoo-shrike—*Graucalus mafoorensis*—has a breast that is beautiful with wavy horizontal lines of white on a black ground color; these lines extend over part of the under wings. In the female the lines are broader, forming narrow stripes, thus giving the appearance of being almost equally and alternately black and white. Otherwise the bird is a soft drab color uniformly spread. Its local habitat seems to be Mafoor Island in Geelvink Bay.

A bird met with frequently along the Fly River and elsewhere in New Guinea as well as in the adjacent islands is a kind of starling—*Mino* or *Eulabes dumontii* or *Gracula dumontii*—often seen sitting on the tops of dead trees, like the Twelve-wired bird of paradise and the Wattled bird. It is about ten inches in length, stout and well built. The body is a fine black with purplish and greenish reflections strongest on the shoulders. Some gray down feathers appear on the neck; on the wings a prominent white patch but small when the bird is not in motion, is to be noted. The under tail-coverts are white sheathing the black tail. The abdomen is bright yellow, as are also the bill and feet. The eyes darker, almost brown. Around the eyes large bare spaces covered with a dull colored skin only, call particular attention to this Grakle. There are also bald spaces extending from the roots of the bill to the chin and throat. The sexes are alike. By some strange oversight in Stone's little volume, this bird is called the Golden oriole. It may be, however, that this traveler confounded Dumont's grakle with an allied genus not altogether unlike an oriole, namely *Gracula orientalis* or *Melanopyrrhus orientalis*, which is not uncommon near Port Moresby and other parts of New Guinea. This showy bird has the head of a bright rich orange. The same deep color marks the rump, lower back and upper tail-coverts. Under parts around the vent show

almost as deep a hue. All else is a glossy green-reflecting black, save a few yellow feathers near the neck. Bill, feet and eyes are light yellow. Length, 10 inches. Another species—*Melanopyrrhus* or *Gracula anais*, has less vivid orange than *orientalis*, but is marked similarly excepting on the head which instead of a rich yellow is glossy black, the bright color not appearing until a broad collar is seen round the neck and throat.

D'Albertis in his Journal describes another Mina, very scarce, which he considered new to science. The male has the "head, neck and breast of a rich orange golden color; throat and sides of the head, dark blackish green; abdomen above and below black, each feather margined with dark shining green; rump and tail-coverts deep golden orange; belly yellow, under tail-cover white tipped by a light yellow; wings and tail black, primaries white spotted, bill, eyes and feet, yellow." The traveler named the bird *Mina roberstonii*.

The Chestnut-backed Eupetes—*Eupetes castanonotus*, is a small, noticeable bird found among the Astralobe Mountains in Eastern New Guinea, and in those of the northwest. The general color above is a rich chestnut. The lower back, rump and upper tail-coverts a clear blue. Wing-coverts are a bright blue with the shaft lines plainly visible. Some reddish stains tinge the scapulars while some small black feathers may also be descried. The tail is of a dull blue cast with clearer edges. The head is banded by a pale blue stripe above the eyes. Black markings diversify the face and run as a narrow rim around the pure white throat and cheeks. The under parts are a bright blue. At the termination of the under tail-feathers are broad patches of black. The length of the male bird is 9 inches. The female is somewhat smaller, differing further in having the entire upper surface chestnut without any blue. The tone is duller, however, excepting on the lower back and rump.

Beccari's Scrub Robin—*Drymoedus beccarii*—is a plain bird, distinctively Australian in character, found in the mountainous regions of New Guinea. The general color above is a lightish brown, wing-coverts ashy brown and black

barred with white. Middle tail feathers brown tipped with white. The head is of a darker brown with a spot of black beneath each eye. The cheeks and throat are a dingy white. Under parts are of a paler brown running into ashy along the sides. Under tail-coverts brown, under wing-coverts dusky tipped with wide white bars. Bill black. Feet light. Length, 7 inches.

A Moluccan Bulbul—*Criniger chloris*—is a rather long, slender bird of a shaded yellow color, about 8.5 inches in length. The head is dark, almost black, sides of the throat slightly speckled. Tail is long and broad. Bill long and black. Feet black. Iris black. Male and female alike. This graceful bird inhabits Batchian and Gilolo, falling, therefore, within the geographical limits of Papua.

Though dull in color the Naked-faced Honey-eater—*Melipotes gymnops*—is not the least interesting of the division of birds to which it belongs. Very many of the honey eaters are remarkable for their rich variegated plumage and the elegance of their forms. New Guinea contains numerous species peculiar to its own territory, while sharing with other portions of Malaysia the possession of many more. The species just noted comes from the Arfak Mountains. It is a small bird with a total length of 8.5 inches only. The prevailing color is dark brown cinereous, deepest on the back and shoulders. The face is bare and of a dingy yellow or mud color; a tint almost the same is seen on the thighs and near the vent. These are the only parts which can boast of any brightness. The abdomen and lower breast present a slightly mottled or striated appearance because of the presence of straggling light feathers over the dark slate ground color. The under tail is also of a slate color unrelieved excepting by the white quills. Bill and feet black, the former short and sharp. D'Albertis classified this honey-eater as a new genus and new species, calling it also a beautiful bird. It hardly deserves this epithet as we have seen.

Among the many Lories of New Guinea, one of the loveliest in harmonious blending of rich colors is the Red-fronted *Chalcopsitta scintillata*, Temm. It is of small size, only a foot long and of a warm, soft green plumage set off with carmine

and black. The forehead is a velvety crimson running into black on the crown. Crimson appears also on the bend of the wings, on the under side of the wings intermingled with yellow, on the thighs and on some of the tail feathers; these tail feathers, exquisitely tinted with yellow at their extremities, are rounded and overlapped in a curiously beautiful fashion. All else the color is a predominating green, frequently flushed with red or grained with yellow. Bill and feet black, eyes yellow. The sexes are not easily distinguished.

ON A NEW CLASSIFICATION OF THE LEPIDOPTERA.

BY A. S. PACKARD.

The taxonomic importance of Walter's most interesting discovery that *Eriocephala calthella* has maxillæ constructed on the type of those of biting or mandibulate insects, *i. e.*, with an inner and outer lobe (lacinia) beside the palpi, was apparently overlooked by him as well as others, though its bearings on the phylogeny of the Lepidoptera as, however, insisted on by Walter, are, it seems to us, of the highest interest. The présence of the maxillary lobes, homologous with the galea and lacinia of the Mecoptera (Panorpidæ) and Neuroptera (Corydalus, Myrmeleon, as well as the lower orders Dermaptera, Orthoptera, Coleoptera, etc.), in what in other important respects also is the "lowest" or most primitive genus of Lepidoptera, the lacinia being a rudimentary, scarcely functional glossa or tongue, and not merely a vestigial structure, is of great significance from a phylogenetic point of view, besides affording a basis for a division of the Lepidoptera into two grand divisions or sub-orders, for which we would propose the names *Lepidoptera laciniata* and *Lepidoptera glossata*.

Sub-order I. LEPIDOPTERA LACINIATA.

Walter thus writes of the first pair of maxillæ: "The other mouth-parts also of the lower Micropteryginæ have a most